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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/757,381	01/14/2004	George Gerpheide	0668.CIRQ.DV3	3629
26986 7590 03/23/2007 MORRISS O'BRYANT COMPAGNI, P.C. 136 SOUTH MAIN STREET SUITE 700 SALT LAKE CITY, UT 84101			EXAMINER DHARIA, PRABODH M	
			ART UNIT 2629	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE 3 MONTHS		MAIL DATE 03/23/2007	DELIVERY MODE PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/757,381	Applicant(s) GERPHEIDE ET AL.	
	Examiner Prabodh M. Dharja	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 43-57 is/are pending in the application.
- 4a) Of the above claim(s) 1-42 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 43-57 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>10-25-04</u> . | 6) <input type="checkbox"/> Other: _____ |

Priority

1. Applicant's claim for the benefit of a prior-filed application under 35 U.S.C. 119(e) or under 35 U.S.C. 120, 121, or 365(c) is acknowledged. Applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 119(e), 120, 121, or 365(c); as follows: It is noted that this application appears to claim subject matter disclosed in prior Application No. 09/603,417, filed 06/22/200 PAT 6,730,863, which claims benefit of 60/140,379 06/22/1999. A reference to the prior application must be inserted as the first sentence(s) of the specification of this application or in an application data sheet (37 CFR 1.76), if applicant intends to rely on the filing date of the prior application under 35 U.S.C. 119(e), 120, 121, or 365(c). See 37 CFR 1.78(a). For benefit claims under 35 U.S.C. 120, 121, or 365(c), the reference must include the relationship (i.e., continuation, divisional, or continuation-in-part) of all nonprovisional applications.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 10-25-2004 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Response to Amendment

3. **Status:** Please all replies and correspondence should be addressed to examiner's new art unit 2629. Receipt is acknowledged of papers submitted on 01-14-2004 under amendments,

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which have been placed of record in the file. Claims 43-57 are pending. Claims 1-42 are cancelled.

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 43-48 are rejected under 35 U.S.C. 102(e) as being anticipated by Bisset et al. (5,920,309).

Regarding Claim 43, Bisset et al. teaches a method for optimizing touchpad performance by improving object detection scanning (Col. 1, Lines 5-7, Col. 4, Lines 5-18), said method comprising the steps of: (i) utilizing a wide scanning mode when no objects are detected on a touchpad surface (Col. 4, Lines 12-18); (2) detecting an object that touches the touchpad surface (Col. 4, Lines 19-29); and (3) utilizing a narrow scanning mode to thereby concentrate position determining functions near a position of the object as determined by the wide scanning mode (Col. 4, Lines 5-29).

Regarding Claim 44, Bisset et al. teaches the step of deactivating circuitry in areas of the touchpad where the wide scanning mode has determined that the object is not located (Col. 4, Lines 5-18).

Regarding Claim 45, Bisset et al. teaches the method further comprises the step of only activating circuitry for the narrow scanning mode in a localized are where the wide scanning mode has determined that the object is located (Col. 4, lines 5-29).

Regarding Claim 46, Bisset et al. teaches the method further comprises the steps of: (1) dividing the touchpad surface into zones; and (2) only activating a zone for narrow scanning mode operations when the wide scanning mode has determined that the object is within that particular zone (Col. 4, lines 12-18).

Regarding Claim 47, Bisset et al. teaches the method further comprises the steps of conserving energy by: (i) maintaining the touchpad in the wide scanning mode when no object is detected on the touchpad surface; (2) operating in the narrow scanning mode only after the object has been detected using the wide scanning mode (Col. 4, lines 5-29); and (3) returning the touchpad to the wide scanning mode after the object is removed from the touchpad surface (Col. 8, Lines 5-7, Col. 4, lines 5-29).

Regarding Claim 48, Bisset et al. teaches the method further comprises the step of ignoring the presence of new objects on the touchpad surface after the narrow scanning mode is in operation around a previously detected object (Col. 10, Lines 23-38).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 49-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bisset et al. (5,920,309) as applied to claims 43-48 above, and further in view of Alexander; Peter W. (US 4,743,895).

Regarding Claim 49, Bisset et al. teaches a method for providing improved performance of a capacitance sensitive touchpad by improving a scanning scheme whereby an object is detected identified and then tracked as it moves across a touchpad surface (Col. 4, Lines 5-8, Col. 2, Lines 22-27, Lines 44-48), said method comprising the steps of: (i) utilizing a wide scanning mode when no objects are detected on a touchpad surface, wherein all electrodes are driven to an active mode so that the presence of an object can be detected at any location on the touchpad (Col. 4, Lines 5-18); (2) detecting an object that touches the touchpad surface by observing a decrease in capacitance between electrodes and the common sense electrode in a vicinity of a location of the object (Col. 9, lines 5-15 teaches it achieves the peak value which indicates the decrease in capacity); and (3) utilizing a focused scanning mode to thereby concentrate position determining activities in the vicinity of the location of the object (Col. 10, Lines 13-43).

However, Bisset et al. fails to specifically recite or disclose a decrease in capacitance between electrodes and the common sense electrode.

However, Alexander Peter W. discloses a decrease in capacitance between electrodes and the common sense electrode (Col. 4, Lines 48-59, Lines 40-45, Col. 5, lines 1-6, Lines 26-37).

Thus it is obvious to one in the ordinary skill in the art at the time of invention was made to incorporate teaching of Alexander Peter W. in teaching of Bisset et al. to able to have a switch/display array described above may be arranged such that separate display areas are associated with the overlying switches; the displays may be varied as desired in response to actuation of the switch or other switches in the array, thus providing an array of programmable multi-functional switches.; only electrodes and underlying the touchpad will be used for illumination purposes and the whole panel may be used to provide a single display, the actuation of the switches producing effects associated with the underlying region of the display. (Col. 6, Lines 3-14).

Regarding Claim 50, Bisset et al. teaches the method further comprises the step of deactivating electrodes that are not in the vicinity of the location of the object when in the focused scanning mode, to thereby make a scanning process more energy efficient (Col. 4, Lines 5-18).

Regarding Claim 51, Bisset et al. teaches the method further comprises the step of ignoring any new object which also makes contact with the touchpad surface as long as the object maintains uninterrupted contact with the touchpad surface (Col. 10, Lines 23-38).

Regarding Claim 52, Bisset et al. teaches the method further comprises the step of returning to the wide scanning mode if the object is removed from the touchpad surface, thereby activating all of the electrodes so as to be able to immediately identify a new object wherever it makes contact with the touchpad surface. (Col. 8, Lines 5-7, Col. 4, lines 5-29).

Regarding Claim 53, Bisset et al. teaches the method further comprises the step of activating the focused scanning mode upon detection of the new object. (Col. 8, Lines 5-7, Col. 4, Lines 5-29, Col. 10, Lines 23-38).

Regarding Claim 54, Bisset et al. teaches the method further comprises the steps of: (i) detecting a first object on the touchpad surface that increases a capacitance between a drive electrode and a common sensing electrode; (2) classifying the first object as an invalid pointing object; (3) nullifying an effect of the first object by balancing the drive electrodes to compensate for the presence of the first object on the touchpad surface (Col. 8, Lines 5-7, Col. 4, Lines 5-29, Col. 10, Lines 23-38); and (4) returning to the wide scanning mode (Col. 4, lines 5-29).

Regarding Claim 55, Bisset et al. teaches the method further comprises the steps of: (I) re-detecting the first object if it should change position on the touchpad surface; and (2) again nullifying the effect of the first object as it moves and at a stationary new position on the touchpad surface. (Col. 8, Lines 5-7, Col. 4, Lines 5-29, Col. 10, Lines 23-38);

Regarding Claim 56, Alexander; Peter W. teaches the method further comprises the step of detecting and nullifying a presence of a plurality of objects that increase a capacitance between the drive electrodes and the common sensing electrode (Col. 5, Lines 2-57).

Regarding Claim 57, Bisset et al. teaches a method for providing improved power conservation of a capacitance sensitive touchpad by improving a scanning mode (Col. 1, Lines 5-7, Col. 4, lines 5-18) , said method comprising the steps of: (i) utilizing a wide scanning mode when no objects are detected on the touchpad surface, wherein all electrodes are driven to an active mode so that the presence of an object can be detected at any location on the touchpad (Col. 4, Lines 5-5-18); (2) detecting an object that touches the touchpad surface by observing a decrease in capacitance between electrodes and the common sense electrode in a vicinity of a location of the object (Col. 9, lines 5-15 teaches it achieves the peak value which indicates the decrease in capacity);; and (3) utilizing a focused scanning mode to thereby concentrate position determining activities in the vicinity of the location of the object (Col. 10, Lines 13-43).

However, Bisset et al. fails to specifically recite or disclose a decrease in capacitance between electrodes and the common sense electrode and consequently deactivate power that is going to electrodes that are not in the vicinity of the location of the object.

However, Alexander Peter W. discloses a decrease in capacitance between electrodes and the common sense electrode (Col. 4, Lines 48-59, Lines 40-45, Col. 5, Lines 1-6, Lines 26-37) and consequently deactivate power that is going to electrodes that are not in the vicinity of the location of the object (Col. 5, Lines 34-57).

Thus it is obvious to one in the ordinary skill in the art at the time of invention was made to incorporate teaching of Alexander Peter W. in teaching of Bisset et al. to able to have a switch/display array described above may be arranged such that separate display areas are associated with the overlying switches; the displays may be varied as desired in response to actuation of the switch or other switches in the array, thus providing an array of programmable multi-functional switches.; only electrodes and underlying the touchpad will be used for illumination purposes and the whole panel may be used to provide a single display, the actuation of the switches producing effects associated with the underlying region of the display (Col. 6, Lines 3-14).

Response to Arguments

7. Applicant's arguments filed 01-14-2004 in specification have been fully considered but they are not persuasive. As none of the independent claims recite specifically "IMPROVED TOUCHPAD RAVING INCREASED NOISE REJECTION, DECREASED MOISTURE SENSITIVITY, AND IMPROVED TRACKING" as stated in the first page of specification.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

D'Amico et al. (5,956,020) Touch screen controller with pen and/or finger inputs..

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9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prabodh M. Dharia whose telephone number is 571-272-7668.

The examiner can normally be reached on M-F 8AM to 5PM.

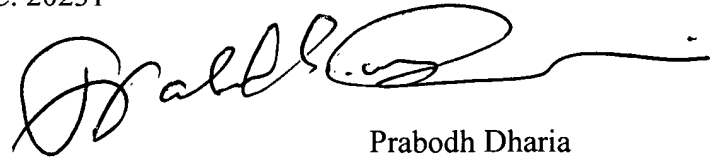
10. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

A handwritten signature in black ink, appearing to read 'Prabodh Dharia', with a long horizontal flourish extending to the right.

Prabodh Dharia

Partial Signatory Authority

AU 2629

March 07, 2007